BELLSOUTH COMMENTS

WC Docket No. 04-313
CC Docket No. 01-338

October 4, 2004

Attachment 1

BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, DC 20544

In the Matter of	)	
	)	
Unbundled Access to Network Elements	)	WC Docket No. 04-313
	)	
Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers	)	CC Docket No. 01-338

AFFIDAVIT OF PAMELA A. TIPTON

I, Pamela A. Tipton, being of lawful age, and duly sworn upon my oath, do hereby depose and state:

I. PROFESSIONAL EXPERIENCE

1. My name is Pamela A. Tipton. My business address is 675 West Peachtree Street, Atlanta, Georgia 30375. I am employed by BellSouth Telecommunications, Inc., ("BellSouth") as a Director in the Interconnection Services Department. My business career spans over 17 years and includes responsibilities in the areas of process development, services implementation, product management, marketing strategy and regulatory policy implementation. I joined Southern Bell in 1987, as a manager in Interconnection Operations, holding several roles over a 5-year period, including process development and execution, quality controls and services implementation. In 1994, I became a Senior Manager with responsibility for End User Access Services and implementation of Virtual Collocation and Physical Collocation. I have served in my current role since 2000, where I have been responsible for the development, implementation, and management of UNE products, and wholesale business strategies. I am currently responsible for implementation of state and federal

regulatory mandates for the Local and Access markets, the development of regulatory strategies, and the management of the switched services product portfolio. I was a participant in the state *Triennial Review Order*[1] impairment cases in the BellSouth region.

2. I received a Bachelor of Arts in Economics from Agnes Scott College in 1986 and completed post graduate studies in Project Management from George Washington University in 1996.

II. SUMMARY

3. I am submitting this Affidavit in support of BellSouth's comments in this proceeding. The purpose of my Affidavit is to: (1) provide an overview of competitors' extensive switch deployment that exists throughout BellSouth's serving territory;[2] (2) address and describe the type of facilities-based alternatives, both intermodal and intramodal, that are currently available to provide communications services; (3) discuss the factual record relating to competitive switching that was developed during state TRO proceedings in BellSouth's region; (4) address and refute specific CLEC switching allegations raised in those state proceedings; and (5) explain how granting unbundling relief

[1] Report and Order and Order on Remand and Further Notice of Proposed Rulemaking, *Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, 18 F.C.C.R. 16978 (2003) ("*Triennial Review Order*" or "TRO"), *reversed in part on other grounds, United States Telecom. Ass'n v. FCC*, 359 F.3d 554 (D.C. Cir. 2004) ("*USTA II*"), *petitions for cert. pending, NARUC v. United States Telephone Ass'n*, Nos. 04-12, 04-15 & 04-18 (U.S. filed June 30, 2004).

[2] When referring to BellSouth's territory or BellSouth's region, I am referring to the geographic areas that BellSouth serves in the states of Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, and Tennessee.

for switching throughout BellSouth's region would be consistent with the D.C. Circuit's decision in *USTA I* and *USTA II*.

III. SWITCH DEPLOYMENT

4. Competitive switches are pervasive within BellSouth's region. July 2004 data indicates competing carriers have deployed more than 450 switches that serve customers within BellSouth's territory, as will be explained more fully below. This total includes both circuit switches and packet switches because facility based providers are increasingly using a variety of switch types to provide local voice services, many times in combination with broadband service and/or advanced vertical features. I obtained this information using July 2004 data extracted from Telcordia® Routing Administration's ("TRA") Local Exchange Routing Guide ("LERG"). Detailed information relating to the switches is attached as composite Exhibit PAT-1. Table 1 of PAT-1 includes the following data: switch identification (Common Language Location Identifier ("CLLI") code); switch equipment type; street address, city, and state in which the switch is physically located; switch owner; and the number of NPA/NXX codes assigned to the switch associated with the rate centers within the indicated BellSouth Metropolitan Statistical Area ("MSA") or Micropolitan Statistical Area ("MCSA"). Table 2 of PAT-1 provides a count of switches with assigned NPA/NXX codes associated with BellSouth rate centers organized by CLEC and by state. Because Table 2 includes only those switches with assigned NPA/NXX codes associated with BellSouth rate centers, this total provides a conservative estimate. Table 3 of PAT-1 presents similar

data, but in a different format. Table 3 includes the following data: switch identification (CLLI code); the state in which the switch is located; switching nodes or points of interconnection/interface ("POI") associated with each switch in BellSouth's serving area; switch type; switch node equipment type (central office code). Thus, Table 3 shows the ubiquity with which CLECs have established switching presences throughout BellSouth's serving area. Because an individual switch may have multiple switch nodes or POIs deployed in separate MSAs/MCSAs, the actual switch identification appears in each MSA or MCSA in which a switching presence, along with assigned NPA/NXXs, has been established.

IV. INTERMODAL ALTERNATIVES

5. Cable service is widely available in BellSouth's region. Exhibit PAT-2 shows the major cable providers and ubiquity of the cable footprint throughout the nine-state BellSouth area. Most of these cable companies are either currently providing or are making plans to provide local voice service, whether directly or through partnerships with other telecom carriers.

6. While some cable companies are offering traditional circuit-switched voice service, many providers are investing in Voice over Internet Protocol ("VoIP") using packet switched voice over their cable modem service. Cable modem coverage is extensive throughout BellSouth's region. As demonstrated in Exhibit PAT-3, the percentage of households with cable modem availability for each of BellSouth's top 26 Metropolitan Statistical Areas ("MSAs") is significant, ranging

from fifty percent (50%) up to one hundred percent (100%). Overall, eighty-three percent (83%) of the households in the top 26 MSAs have such access. Exhibit PAT-4 provides a map of each MSA, which visually depicts the extent of cable modem coverage represented by the data in Exhibit PAT-3. On each map, the coverage area of each major cable company in that market is separately illustrated, with smaller companies grouped into a "remaining providers" category.

7. Not only is cable modem service availability significant, the actual number of customers subscribing to cable modem service within BellSouth's region is substantial. According to the FCC's June 2004 report on High Speed Services for Internet Access, there were more than 3.1 million cable subscribers in the nine states within the BellSouth region at the end of 2003. For the eight states for which data is available in concurrent years (2002 and 2003), there has been a 43% increase in cable modem service subscribers in the last year. Exhibit PAT-5 shows the number of subscribers within the BellSouth region for 2000 through 2003.

8. Packet switches and soft switches are used to provide VoIP and other broadband services, whether over traditional telecom (DSL) facilities, cable (modem) facilities or other facilities. Data published by New Paradigm Resources Group, Inc. indicates there are at least 200 packet/soft switches deployed by competing carriers in BellSouth's region. These switches can achieve increased economies due to the nature of packetized transport and are technically capable of serving customers over a wide geographic area. This capability combined with the cable

modem market penetration cited above emphasizes the broad reach cable providers can leverage in pursuit of voice customers, in BellSouth's region whether they offer voice/VoIP themselves or partner with another service provider.

9. Many competitive voice providers, including Vonage, Time Warner Cable ("TWC"), AT&T, and Verizon are eager to ride the VoIP wave. On July 22, 2004, Verizon announced the nationwide launch of VoiceWing^{sm}, its consumer VoIP service. This marks the first time an RBOC has entered the territory of another RBOC with a local VoIP offer. Verizon offers its VoIP service nationwide, with telephone numbers available from 23 area codes within BellSouth's service area that represent 25 markets across eight of BellSouth's states (see Verizon's website at https://www22.verizon.com/ForYourHome/voip/CallingAreaCodes.aspx). AT&T's recently launched CallVantage service is also available nationwide, with telephone numbers available from 28 area codes within BellSouth's serving area that represent over 30 markets in BellSouth's states. Exhibit PAT-6 consolidates information from the websites of both Verizon and AT&T that shows the area codes and markets where these packet switched voice services are available. In addition, TWC offers VoIP in Raleigh, Charlotte, and Greensboro, North Carolina, Columbia, SC and Memphis, TN (see Time Warner Cable website at (http://www.timewarnercable.com/corporate/products/digitalphone/default.html)

10. Cable companies also provide circuit switched cable telephony in BellSouth's region. Some cable companies, like Comcast, are currently offering circuit

switched local service to thousands of residential customers throughout its footprint, which includes markets in the states of Florida, Georgia, and Kentucky.[3] Other cable companies offer local service on a targeted basis. For example, Cox Communications offers circuit switched cable telephony in New Orleans (see www.cox.com). Knology offers circuit switched cable telephony in targeted areas of Alabama, Florida, Georgia, South Carolina and Tennessee. Knology has been particularly successful in its efforts in Florida, obtaining 35 - 40% of the residential market in Panama City.[4]

11. The use of wireless services is also increasing. The most recent FCC data shows that from at least three to more than seven wireless providers offer service throughout BellSouth's region. Attached as Exhibit PAT-7 is map 1 from the FCC's Ninth Annual Report and Analysis of Competitive Market Conditions With Respect to Commercial Mobile Services, WT Docket No. 04-111, FCC 04-216 ("Ninth CMRS Report") (rel. Sept. 28, 2004), with the southeastern states enlarged. In addition, Exhibit PAT-8 utilizing the subscriber data from Table 2 of the Ninth CMRS Report, illustrates that there were 33.3 million wireless subscribers in the nine BellSouth states at the end of 2003. Throughout BellSouth's region, there has been a 13% increase in wireless subscribers within the last year alone. Increasingly, customers are substituting their landline service for wireless service.

[3] *See* BellSouth App. at 13-14.
[4] *See* BellSouth App. at 15 and 22.

V. INTRAMODAL ALTERNATIVES AND THE STATE PROCEEDINGS

12. Competitive switches are also abundant in BellSouth's region. During the state TRO proceedings, data indicated at least 110 of the competitive switches in the nine BellSouth states served mass market customers, using the conservative assumption that a mass-market customer constituted a residential or small business customer with three or fewer DS0 lines.

13. Of the switches that I identified above as serving mass market customers, I have prepared a map that highlights the number of these switches by MSA/MCSA as Exhibit PAT-9, page 1. Exhibit PAT-9, page 2 supplements these switches by including the remaining CLEC switches identified in the LERG as serving end user customers in BellSouth's region. While this exhibit does not

14. To compile the quantities listed above, I used July 2004 LERG data as well as confidential discovery responses provided by CLECs in the state TRO proceedings. The LERG provides details about switches, including, but not limited to, CLLI codes, physical location, established POIs, homing arrangements, NPA/NXX assignments, Local Routing Numbers ("LRNs") and more. From this information, one can determine the actual or planned reach of any given switch, which I discuss in more detail below.

15. For many reasons, the LERG is the appropriate and best source from which to derive competitive switch deployment information. First, the LERG is designed to be used for call routing purposes as well as to provide information on the local

serving area of each of the numerous carriers providing (or offering to provide) local telecommunications service. Since the establishment of the Bell Operating Companies ("BOCs") in 1984, Bell Communications Research ("BellCore"), now TRA has served as the resource for inter-company exchange of pertinent rating and routing data and has been the industry recognized source of routing and rating information products. As stated on Telcordia's website (www.trainfo.com), "Telcordia® Routing Administration (TRA) supports the telecommunications industry by providing essential data... for completion of Public Switched Telephone Network (PSTN) calls and proper rating of these calls." Second, the LERG is available on a commercial basis to the telecommunications industry. Any telecommunications company with a paid subscription or licensee agreement can access the data contained therein. Third, switch owners self-report data to Telcordia and it is this data that is published in the LERG. The Telcordia website explains, "The LERG . . . provides routing data . . . entered by Local Service Providers (LSPs) and/or their agents." Consequently, actual switch owners can monitor and ensure the LERG's accuracy and reliability and provide necessary updates.

16. In addition, the TRA's data collection process permits all local service providers to report data on NXX codes (also variously referred to as Central Office Codes, prefixes, and exchanges), as well as information on the 1,000 block line level assignments made within an NXX code, switch-to-switch homing, switching entity functions, and other related routing data. Thus, the LERG is compliant with North American Numbering Plan Administration ("NANPA") and Central Office Code Assignment Guidelines ("COCAG"), both of which are governed by federal

standards. Thus, categorization on how a switch is used (e.g., end office vs. tandem switch) follows narrowly tailored industry guidelines. Carriers who have reserved numbers under NANPA guidelines must, according to those federal standards, "use or lose" those numbers. Moreover, because the LERG is updated on a monthly basis, it reflects both the current and future state of switching deployment nationwide.

17. To calculate the total number of competitive switches deployed in BellSouth's serving area, I had to filter certain LERG data. My filtering process was as follows. First, all BellSouth Operating Company Numbers ("OCNs") were identified in the LERG. Using the BellSouth OCNs, all rate centers in BellSouth's serving territory and assigned to a BellSouth OCN were identified. Next, a relational query using the BellSouth rate centers and the LERG number assignment data identified all non-BellSouth NPA/NXX codes and associated OCNs assigned to BellSouth rate centers. The next step determined the CLLI codes assigned to the switches serving those NPA/NXX assignments. The switch CLLI was then mapped to the individual switch owner (carrier name). Finally, this data was filtered to include only those switches identified as performing an "End Office" function and belonging to a provider self-reported as a CLEC. Switches belonging to wireless carriers, paging companies, or other non-CLEC providers were excluded.

18. Of the filtering steps above, associating the CLEC NPA/NXX codes assigned to a BellSouth rate center is significant. This ensures that the switches I identified are serving BellSouth's territory.

19. I included all CLEC switches that had telephone number (NPA/NXX) assignments associated with a BellSouth rate center. Likewise, while I captured only CLEC switches, remote switches that had direct NPA/NXX code assignments, and were thus established by CLECs to provide service to end user customers, were included. I also included alleged toll switches as will be discussed below. I understand the UNE Fact Report 2004 uses CLEC switch numbers obtained from New Paradigm Resources Group, Inc., an independent research company, which I presume uses a different method of calculating switches than the process that I use. As a result, while both the numbers in the UNE Fact Report 2004 and the numbers in this affidavit provide information concerning the broad scope of facilities-based deployment, the numbers may not be directly comparable.

20. In the state TRO proceedings, various CLECs objected to my use of LERG data. I reviewed their objections in the state cases and considered and rejected those objections anew prior to filing this Affidavit. In relevant part, CLECs claimed that (a) the data was duplicative; and (b) the data erroneously included toll switches. Both claims are without merit.

21. With respect to repetition, I reviewed the LERG data used to derive the total switch counts to ensure that it contains no duplicative data. I have also ensured that the switch totals that I discuss in Paragraph 4 do not contain duplicative data.

22. With respect to so-called "toll switches", BellSouth disagrees that the CLECs' self-serving characterization precludes consideration of such switches as evidence of intramodal switch deployment. CLECs can and have used Lucent 4ESS and 5ESS switches and Nortel DMS switches for both long distance and local traffic. For example, AT&T uses its so called "toll" switches to provide a digital link product that allows customers to add local voice traffic. While AT&T has claimed it provides its digital link product at a DS1 level of service, BellSouth Affiant Mr. W. Keith Milner discusses from a technical perspective how such switches can be used to provide DS0 voice grade local. Because these switches can be used in this fashion and are currently used to provide local service to some degree, I included data about all switches in BellSouth's region in the course of the state TRO proceedings.

23. In addition, the CLECs' characterization of switches appears to be colored more by regulatory gamesmanship than by actual facts. For example, in various state arbitration proceedings, CLECs touted the geographic reach of their switches in order to avail themselves of the higher tandem interconnection rate, yet those same CLECs disavowed this testimony in the state TRO proceedings. I will discuss this in more detail below.

24. When considering the geographic reach of switches, a single switch can serve many customers. Exhibit PAT-10 provides a pictorial representation of how a single switch located in Nashville, Tennessee is providing service to six (6) of BellSouth's nine (9) states and to four (4) states located outside BellSouth's territory.

25. The geographic reach of switches is extended by the use of POIs. At least ten (10) CLECs have deployed switching POIs in BellSouth's serving areas that extend from more than eighteen (18) switches physically located outside of BellSouth's nine-state region. For example, a POI established in Macon, Georgia is being served from a switch physically located in Chicago, Illinois. Switching POIs located in several Louisiana MSAs are served from switches physically located in Houston and Dallas, Texas.

26. Moreover, the CLECs have touted the broad reach of their switches in various proceedings, explaining their networks are not configured like BellSouth's and that they rely on fewer switches and more transport to serve their customers. For example, in Florida Public Service Commission Docket No. 000731-TP, AT&T's witness, David Talbott testified that:

> "AT&T offers local exchange service in Florida via 4ESS switches, which function primarily as long distance switches, and 5ESS switches, which act as adjuncts to the 4ESS switches. ***AT&T has the ability to connect virtually any qualifying local exchange customer in Florida to one of these switches through AT&T's dedicated access services.*** TCG provides local exchange services using Class 5 switches. TCG is able to connect virtually any customer in a LATA to the TCG switch serving that LATA either through (1) TCG's own facilities built to the customer premises, (2) UNE loops provisioned through collocation in BellSouth end offices, or (3) using dedicated high-capacity facilities (in special access services or combination of UNEs purchased from BellSouth)." [Emphasis

added] [Docket Number 000731-TP, November 16, 2000 Direct Testimony of David Talbott, pp. 31-32.]

Likewise, MCI (formerly WorldCom) filed testimony with the Florida Commission regarding its switch coverage in the South Florida and Orlando areas. Regarding the South Florida area, its witness Don Price stated that:

> "The WorldCom network consists of four switches, three of which are located in the Miami rate center and one of which is located in the Fort Lauderdale rate center. These switches, combined with the transport network described below, provide local service in ***eleven*** rate centers in the South Florida area. [Emphasis added]

With respect to WorldCom's local network in the Orlando area, Mr. Price testified that:

> "the WorldCom network consists of one switch which is configured and equipped to provide local service in ***fourteen*** rate centers. [Docket No. 000649-TP, August 17, 2000, Prefiled Direct Testimony of Don Price, pp. 46-47] [Emphasis added]

27. When considering the sheer number of switches deployed, Exhibit PAT-11 shows how switches deployed by a single carrier reach nearly every key market within BellSouth's nine-state region.

28. As one indicator of competitive growth, I have included as Exhibit PAT-12 a chart depicting the growth in ported telephone numbers in BellSouth's region. The

number of telephone numbers ported from BellSouth to another carrier has grown over the past three years.

29. I also reviewed the LERG data to compile the most current quantities of CLEC switches that I included in Paragraph 4. In Table 3 of Exhibit PAT-1, I used July 2004 LERG data to derive the total number of CLEC switches and POIs in each MSA/MCSA in BellSouth's serving territory. I included POIs because, although POIs are not actual switches, they allow switching functionality in a given geographic area. I used the filtering methodology described above, which is identical to the process used in the state TRO proceedings. Updated to reflect July 2004 LERG data, there are 906 CLEC switches and/or switch POIs in the BellSouth region. I have also included as Exhibit PAT-13, a count that includes discrete switches and switching POIs that includes the total switching presence – switches and POIs – by MSA/MCSA where a switch or POI carries the same CLLI in BellSouth region. This total excludes wireless switches but includes Lucent 4ESS and other CLEC-characterized "toll" switches.

30. There can be no doubt that CLECs are serving local customers using their own switches. In the top 26 MSAs in the BellSouth region, CLECs provide local service via their own switches or switch POIs in 85% of the wire centers representing 80% of BellSouth's access lines. In the larger MSAs, the percentage of wire centers served by CLEC switches and/or POIs is even higher – 90-95% for MSAs such as Atlanta, GA and Jacksonville, FL and 100% for Miami/Fort Lauderdale, FL; Orlando, FL; Nashville, TN; and Memphis, TN. Importantly, CLECs are using their switches and/or switch POIs to provide local

service to mass market customers. Exhibit PAT-14 demonstrates a UNE-L presence in these areas and includes UNE-P information, as described in Paragraph 31, below. Taking into account the pervasive deployment of switches and switching POIs, especially in markets where the switch owners have also purchased UNE-P, there is simply no reason to allow CLECs continued access to unbundled local switching from BellSouth. Finally, Exhibit PAT-15 shows the number of mass-market lines, using the conservative assumption that a mass-market customer constitutes a residential or small business customer with three or fewer DS0 lines, served by CLECs using their own switches in BellSouth's region.

31. Further, when gauging the level of competitive entry, CLECs' embedded base of UNE-P customers is relevant. In those areas in which a particular carrier has established either a switch or a switching POI, a CLEC's UNE-P base can readily be moved from BellSouth's switching facilities to the CLEC's switching facilities. When considering UNE-P volumes together with existing UNE-L volumes in BellSouth's top 26 MSAs alone, CLECs are providing local service within 99-100% of BellSouth's wire centers in these areas. In many cases, CLECs have deployed their own switching capabilities in the same markets in which they are also purchasing UNE-Ps from BellSouth. For example, there are over 300,000 UNE-Ps in MSAs/MCSAs where the UNE-P CLEC has established a switching presence. Likewise, there are over 110,000 UNE-Ps in eight of the top 26 MSAs where the UNE-P CLEC has established a switching presence.

32. Moreover, my investigation also shows that some CLECs' claims of an exit from the residential market are overstated. To validate the extent to which AT&T continues to offer local service, calls were placed to AT&T asking if basic local voice service – excluding internet service -- was available. Customer service representatives confirmed that basic local voice service is available in all nine BellSouth states. In addition, both AT&T and MCI advertise residential local calling service -- not linked to a broadband connection – on their websites. MCI's website states, "The Neighborhood is now available in all 48 contiguous states plus Washington, DC, making MCI the first nationwide local phone company." *See* http://consumer.mci.com/TheNeighborhood/res_local_service/jsps/default.jsp. AT&T's consumer services website includes information about various local calling plans and bundled offers as well as VoIP service (that is, AT&T's CallVantage service). Querying AT&T's website with various telephone numbers confirms AT&T is offering local service, not just CallVantage, in all nine BellSouth states. (See Local Service on AT&T's website at http://www.consumer.att.com/plans/calling/).

33. There is also now evidence of carriers offering wholesale switching. Level Three offers a wholesale VoIP service (http://www.levelthree.com) and XO Communications advertises a wholesale circuit switch service on its website available to CLECs, interexchange carriers as well as incumbent carriers (http://www.xo.com/products/carrier/portfolio.html).

VI. CLEC ALLEGATIONS CANNOT WITHSTAND SCRUTINY

34. As discussed above, in the state TRO proceedings, CLECs asserted that switches used primarily to serve enterprise customers or to switch toll traffic should not be included in an impairment analysis concerning mass market switching. I disagree with such assertions because in arbitration proceedings where CLECs were seeking to avail themselves of tandem switching rates they testified that their toll switches were, in fact, providing local service to end user customers.

35. During the state TRO proceedings, CLECs made the claim that at least 20% of a switch's capacity must be serving mass market customers before the switch could be counted in an impairment analysis.[5] This means that, in the CLECs' view, a switch with the capacity to serve 50,000 lines must serve at least 10,000 mass market customers before it is even relevant. Such a claim is simply preposterous. The reality is that CLECs use their switches to serve mass market customers. That CLECs choose to do so at relatively low volumes does not preclude consideration of such switches. Instead, it demonstrates that CLEC switches have ample capacity to serve customers in greater quantities than, to date, CLECs have elected.

VII. SWITCHING FACTS AND THE D.C. CIRCUIT COURT DECISIONS

36. A determination that CLECs are not impaired without unbundled access to BellSouth's local switching is consistent with the decisions of the D.C. Circuit.

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[5] BellSouth App. at 31.

37. First, such a decision could and should consider intermodal alternatives. Second, such a decision could and should consider intramodal alternatives. Third, eliminating access to unbundled local switching throughout BellSouth's region recognizes the reality of the geographic reach of CLECs' switches, which are being used and can be used even more extensively to serve customers located in many different geographic areas. The reality and availability of the intermodal and intramodal alternatives demonstrates that, however a market is configured, there are local service options available now, and there will be more options in the future for residential and small business customers.

38. This concludes my Affidavit.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Pamela A. Tipton
Director
Interconnection Services

Subscribed and sworn to before me

This 4th day of October, 2004

Notary Public

Gay P. Diz
Notary Public, DeKalb County
Georgia
My Commission Expires
February 09, 2007